

Table 1 - Instream Protected Flows for the Segments of the Souhegan River Designated as Protected Pursuant to RSA 483:15, XIII

Upper Souhegan Protected Instream Flows for Fish			Common flow				Critical flow				Rare Flow			
Time of Year	Controlling IPUOCR Upper Souhegan Flows	Bioperiod	Common flow (cfs)	Common flow (cfsm)	Allowable duration (days)	Catastrophic duration (days)	Critical flow (cfs)	Critical flow (cfsm)	Allowable duration (days)	Catastrophic duration (days)	Rare flow (cfs)	Rare flow (cfsm)	Allowable duration (days)	Catastrophic duration (days)
Jan 1 – Feb 28	Fish overwinter	Over-Wintering	204	2.0	35	50	51	0.50	15	30	31	0.30	5	10
Mar 1 – Apr 30	Spring flood	Spring Flood	389	3.8	28	36	113	1.1	12	16	82	0.80	5	7
May 1 – Jun 14	Shad spawning	Shad Spawning	215	2.1	25	40	61	0.60	10	15	38	0.37	4	7
Jun 15 – Jun 30	GRAF spawning	GRAF Spawning	24	0.23	20	27	11	0.11	10	20	8	0.08	10	15
Jul 1 – Jul 14	GRAF spawning													
Jul 15 – Aug 21	GRAF rearing & growth	Rearing & Growth	31	0.30	30	42	16	0.16	15	35	10	0.10	5	30
Aug 22 – Sep 14	GRAF rearing & growth													
Sep 15 – Sep 30	GRAF rearing & growth													
Oct 1 – Nov 14	Salmon spawning	Salmon Spawning	41	0.40	30	40	10	0.10	12	23	10	0.10	10	23
Nov 15 – Dec 1	Fish overwinter	Over-Wintering	204	2.0	35	50	51	0.50	15	30	31	0.30	5	10
Dec 2 – Dec 31	Fish overwinter													

Lower Souhegan Protected Instream Flows for Fish			Common flow				Critical flow				Rare Flow			
Time of Year	Controlling IPUOCR Lower Souhegan Flows	Bioperiod	Common flow (cfs)	Common flow (cfsm)	Allowable duration (days)	Catastrophic duration (days)	Critical flow (cfs)	Critical flow (cfsm)	Allowable duration (days)	Catastrophic duration (days)	Rare flow (cfs)	Rare flow (cfsm)	Allowable duration (days)	Catastrophic duration (days)
Jan 1 – Feb 28	Wood Turtle hibernation	Over-Wintering	342	2.0	35	50	86	0.50	15	30	51	0.30	5	10
Mar 1 – Apr 30	Spring flood	Spring Flood	650	3.8	28	36	188	1.1	12	16	137	0.80	5	7
May 1 – Jun 14	Shad spawning	Shad Spawning	178	1.0	15	25	96	0.60	5	10	88	0.50	5	10
Jun 15 – Jun 30	Oxbow and backwater marsh maintenance	GRAF Spawning	39	0.23	17	25	239 / 26	1.4 / 0.15	13 / 15	23 / 20	325 / 17	1.9 / 0.10	10 / 10	10 / 10
Jul 1 – Jul 14	Oxbow and backwater marsh maintenance													
Jul 15 – Aug 21	Oxbow and backwater marsh maintenance	Rearing & Growth	103	0.60	20	40	26	0.15	15	20	17	0.10	5	10
Aug 22 – Sep 14	Oxbow and backwater marsh maintenance													
Sep 15 – Sep 30	GRAF rearing & growth													
Oct 1 – Nov 14	Salmon spawning	Salmon Spawning	184	1.1	23	40	96	0.60	12	40	70	0.40	5	10
Nov 15 – Dec 1	Fish overwinter	Over-Wintering	342	2.0	35	50	86	0.50	15	30	51	0.30	5	10
Dec 2 – Dec 31	Wood Turtle hibernation													

Bold values are upper limits for instream flow for protection of GRAF spawning. Flows should not be created that exceed these magnitudes and durations.

Souhegan Protected Instream Flows for Natural Communities, Wildlife Habitats and Rare, Threatened or Endangered Wildlife and Plants	
Wild Senna and Wild Garlic	>18.7 cfsm on a frequency of once every 2-10 years
Twisted Sedge/Fern Glade (upper Souhegan only)	>2.8 cfsm once every 1-3 years (December through April)
Wood Turtle (lower Souhegan only)	<5.85 cfsm (June through September)
Wood Turtle (lower Souhegan only)	Flow should exceed the average flow of the last two weeks of the previous November (December through February).
Fowler’s Toad (lower Souhegan only)	>2.335 cfsm at least once to fill wetlands (March through May); and >0.175 cfsm at least monthly to maintain breeding pools (June through mid-August)
Silver Maple Floodplain Forest (lower Souhegan only)	>11.7 cfsm once every 1-3 years
Sycamore Floodplain Forest (lower Souhegan only)	>17.5 cfsm once every 1-3 years
Oxbow/Backwater Marsh (lower Souhegan only)	>3.5 cfsm at least once to fill (March through April)